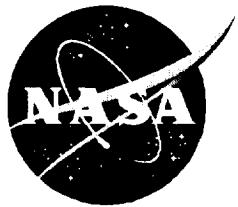


NASA/CR-1999-208921



Ellington Field: A Short History, 1917-1963

Erik Carlson
NASA Johnson Space Center

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas 77058-4406

February 1999

Acknowledgments

The research and writing of this project was made possible by a 1998 ASEE/NASA Summer Faculty Fellowship at the Johnson Space Center (JSC) in Houston, Texas. Special thanks to William A. Larsen at JSC for the opportunity to write about the past at a facility where they create the future. Thanks to Luanne Jorewicz for editing this article. Thanks to Technical Sergeant Charles Hill, base historian at Ellington Field, for access to the history files. Thomas Hail's bibliographical work on Ellington Field was vital to my research. Al Stepchinski at Ellington Field provided help. The staffs of the libraries at JSC, the University of Houston system, Rice University, the Houston Public Library, and the Moore Memorial Public Library provided valuable assistance. Sherry Adams at the *Houston Chronicle* allowed me to use the *Chronicle's* newspaper files. Betty Coats at the Hocutt-Ellington Library in Clayton, North Carolina, and Gary A. LaValley of the United States Naval Academy Library sent me materials on Lt. Eric L. Ellington.

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Acronyms

CONAC	Continental Air Command
MSC	Manned Spacecraft Center
NASA	National Aeronautics and Space Administration
ROTC	Reserve Officer Training Corps
STG	Space Task Group
UFO	unidentified flying object
USAAC	U.S. Army Air Corps
USAAF	U.S. Army Air Force
USAF	U.S. Air Force

Ellington Field: A Short History, 1917-1962

Introduction

Ellington Field in Houston, Texas, has a unique heritage that mirrors the course of 20th century American military history. For 81 years, Ellington Field served the United States Army and Air Force through times of war, cold war, and peace. Over the past 8 decades the airfield has functioned in variety of operational roles: as an active duty base, an Air Force Reserve base, and an Air National Guard base. Overall, Ellington Field's economic, political, and technological impact on the development of south Texas cannot be underestimated. While most military facilities built in 1917 to train pilots for combat in the First World War have long since disappeared, Ellington Field remains active as a private field that serves the military, commercial, and general aviation needs of Houston.

The Origins of U.S. Army Aviation

On December 17, 1903, Orville and Wilbur Wright ushered the world into the era of powered flight. Though the Wright brothers' flight had initiated a technological revolution, skeptical news editors buried sketchy reports of the flight in the backs of most newspapers. The Wrights, however, realized their new machine had distinct military applications. Prodded by French requests to purchase the aircraft, Orville and Wilbur Wright began the long process of convincing the U.S. government of the merits of their invention.¹

The Wrights contacted the War Department with news of a successful powered flight, but it was met with a degree of skepticism, reflecting contemporary disbelief in the possibility of true powered flight. Eventually the Wrights sent a proposal to the U.S. Army. Army officers on the Board of Ordnance and Fortification reviewed the proposal but rejected it because they

¹Charles D. Chandler and Frank P. Lahm, *How Our Army Grew Wings* (New York: The Ronald Company Press, 1943), 146-147.

misunderstood the military potential of the airplane and were reluctant to accept new technology.²

Disturbed with the military's dismissal of the Wrights' proposal, several influential members of the Aero Club of America circumvented the departmental roadblock and contacted President Theodore Roosevelt. The President met with Aero Club members who convinced him of the airplane's military application. Roosevelt instructed Secretary of War William Howard Taft to reevaluate the Wrights' machine. Immediately Taft ordered the Board of Ordnance and Fortification to reinvestigate the issue. The War Department invited Wilbur Wright to speak before the Board. After the hearings, the Board of Ordnance and Fortification reluctantly recommended that the U.S. Army purchase the Wrights' aircraft.³

Despite its conservative response to the airplane, the War Department had not been oblivious to other advances in aeronautical science. At the turn of the century, the U.S. Army had been involved in the experimental use of hot air balloons for observation, and sponsored a series of ill-fated attempts by Dr. Samuel P. Langley to achieve powered flight. In 1907 the U.S. Army established the Aeronautical Division⁴ within the Signal Corps to handle all aviation activities. Aeronautical Division officials wanted to purchase outright the Wright aircraft, but government regulations would not allow procurement of military equipment without competitive bidding. To facilitate the bidding process, the Aeronautical Division outlined the basic requirements for an army aircraft: a crew of two, top speed of 40 miles per hour, and easily disassembled and transported on army trucks.⁵

²Ibid. 148.

³Ibid. 149.

⁴In July 1914 the Aeronautical Division was renamed Aeronautical Section. By 1918 the Aeronautical Section was reorganized into the U.S. Army Air Service. In 1926 Congress authorized the creation of the U.S. Army Air Corps. By June of 1941 the Army Air Corps became the U.S. Army Air Force.

⁵Ibid. 145.

Of the 41 companies that submitted bids, only three businesses fit the parameter of the Signal Corps' requirements. Out of these three the Wright's bid was the highest. Because government rules required the army to accept the lowest bidder, the Wrights were not awarded a contract. Since the remaining two bids were within the Aeronautical Division's budget, the Army accepted both proposals. Unfortunately one of the companies was unable to deliver the product. With monies from a special government fund, the Signal Corps was able to accept the Wright's initial bid.⁶

On February 10, 1908, the Wright Brothers signed a contract with the U.S. Army for the construction and delivery of one Wright Flyer. Throughout 1908 and 1909, flight tests on the Wright Flyer were conducted on the parade grounds at Fort Myer, Virginia. For the first time in history, the American public observed a demonstration of powered flight. Journalists, politicians, and curiosity seekers watched in amazement as the Wrights flew their aircraft. In 1909, the new president, William Howard Taft, witnessed the Wright flight trials. By 1909 the news of a "flying machine" traveled throughout the United States and the world.⁷

U.S. Army Aviation in Texas

In 1911 Mexico erupted in a violent political and social revolution. Porfirio Diaz, the long-time Mexican dictator, was forced to flee Mexico. By 1913 problems were so severe in Mexico that some U.S. officials feared that the Mexican revolution might overflow into the United States. To prevent any problems, President Taft ordered the U.S. Army to patrol the U.S.-Mexico border.⁸

In February 1913, the U.S. 2nd Infantry Division was ordered to Texas. Texas City, Texas, was selected for divisional headquarters because of its modern railroads, warehouses, and deep-water port facilities. On February 27, 1913, the

⁶Ibid. 149-150.

⁷Ibid. 150, 152-154.

⁸For an overview of the Mexican Revolution see Thomas Bailey's *A Diplomatic History of the American People*, 554-562.

first elements of infantry, artillery, and signal corps units left military installation throughout the United States to rendezvous in south Texas. By March, the last elements of the division were encamped at both Texas City and Galveston Island, Texas. To provide observation capabilities for ground troops, the signal corps detachment brought pilots and aircraft from army aviation schools in Augusta, Georgia, and College Park, Maryland.⁹

When Signal Corps officials decided to bring an aviation unit to Texas, they made a significant organizational change. Because the aviators might be involved in combat, army officials decided that the aeronautical detachment would not operate as an aviation school, but rather as a combat squadron. For the first time in American military history, an air squadron was formed on the coastal plains of south Texas.

On March 5, 1913, the new unit was designated the 1st Provisional Aero Squadron (the word "provisional" was later dropped from the unit's designation). The 1st Aero Squadron was commanded by Captain A.C. Cowan and consisted of two companies, comprising 9 aircraft and 51 personnel. Among the 1st Aero Squadron's officers were Lt. Eric Lamar Ellington and Lt. Hugh M. Kelly.¹⁰

Flight conditions in south Texas were not ideal for the operation of Wright C Flyers. For optimal performance, Wright Flyers needed low wind conditions. Gusty winds near Texas City often presented problems for the pilots of the 1st Aero Squadron. Though not much space was necessary to take off or land a Wright Flyer in 1913, pilots found their airfield surrounded on three sides by rows of tents and lines of high wires strung near the field. Because of crowded conditions at the Texas City camp, landings and takeoffs became hazardous for army aviators. Despite problems, the 1st Aero Squadron flew several record-breaking cross-country flights from Texas City to Houston and San Antonio.

⁹Souvenir of the Encampment of U.S. Troops Fourth and Sixth Brigades Second Division at Texas City, Texas, 1913. Rosenberg Library, Galveston, Texas.

¹⁰Juliette A. Hennessy, *The United States Army Air Arm: April 1861 to April 1917* (Washington, D.C.: GPO, 1985), 74.

During their time in south Texas, the unit also flew many observation and mapping missions for the U.S. 2nd Infantry Division.¹¹

Though army aviators gained valuable flight experience in Texas, the variable wind conditions and mechanical problems plagued the 1st Aero Squadron's aircraft throughout their stay at Texas City. By June, because the Mexican crisis had temporarily subsided, the War Department transferred the 1st Aero Squadron to San Diego, California, where the Signal Corps planned to establish a unified aviation school. While Captain Cowan moved most of the squadron west, Lt. Roy C. Kirtland and Lt. Loren H. Call remained in Texas City. Flights at Texas City continued but were limited in time and duration. In June 1913, Lt. Call was killed in an air crash. By November all flight operations in Texas were suspended. The roar of airplane engines would not be heard again in south Texas until the United States' entrance into the First World War.¹²

Biography of Lt. Eric Lamar Ellington

John Ellington, the first Ellington to arrive in British North America, landed in the thriving colony of Virginia in 1712 to help conduct a land survey of Prince George's County Virginia (the first reference to the name Ellington in English history was found in William the Conqueror's Domesday Book).¹³ John Ellington's son, Jesse, moved from Virginia to North Carolina, where his great-grandson John F. Ellington later served as the mayor of Clayton, North Carolina, and as a congressman in the state legislature.¹⁴

John Ellington's great-great-grandson Jesse Thompson Ellington fought as a 1st Lieutenant in the Confederate Army during the Civil War. Like his father, Jesse was interested in law and politics; later in life, he also became a member of the

¹¹Ibid. 74-76.

¹²Ibid. 76-79.

¹³Ellingtons, undated. Eric L. Ellington File. Ellington-Hocutt Library, Clayton, North Carolina.

¹⁴Ibid.

North Carolina State Legislature, and he served as the sheriff of Johnston County, North Carolina, for 20 years.¹⁵

After the Civil War ended, Jesse's second marriage—to Sallie Williams from Virginia—produced three children, one of them a boy who later became a pioneer in military aviation. On May 15, 1889 in Clayton, North Carolina, Sallie Ellington gave birth to a son, Eric Lamar Ellington. As a young boy, Eric attended a Baptist church and graduated from Smithfield grade school. Born during the Age of Imperialism, Eric L. Ellington had a keen interest in military and naval history. During the Spanish-American War, Eric and his brothers, Douglas and Kenneth, followed United States involvement in the war by reading local newspapers. His family remembered, "When the Spanish-American War broke out, he was a lad of nine years, but followed the progress of the American campaigns with a degree of patriotism and intelligence that amazed us." Naval battles that took place in exotic places such as Havana Harbor and Manila Bay particularly intrigued Eric who, along with his brothers, designed scale model ships and fought imaginary naval engagements on the bedroom floors.¹⁶

At the age of 16, Eric Lamar Ellington was appointed to the U.S. Naval Academy. On July 8, 1905, Ellington arrived at Annapolis, Maryland, to matriculate into the prestigious naval officer school, where Naval Academy officials allowed him to enroll despite his diminutive stature (Eric stood only 5 feet 3 inches tall and weighed only 100 pounds).¹⁷

During a routine physical in the spring of 1906, Naval Academy physicians disqualified Ellington because of "arrested development" and "poor physique," but he received a reprieve when U.S. Naval Academy officials waived his medical disqualification because of his young age. Ellington gained weight over the next

¹⁵Ibid.

¹⁶Ibid: Clayton Chronicle, October 11, 1917.

¹⁷Eric L. Ellington, Midshipman personnel jacket, Special Collections and Archives Division, Nimitz Library, United States Naval Academy.

three years, but always remained slight in stature.¹⁸ The only photographic images of Eric Lamar Ellington at the Naval Academy are found in the yearbook the Lucky Bag. The 1908 Lucky Bag portrait of Eric L. Ellington is quite revealing. The photograph shows a young man with a defiant scowl. Despite the stern look, Ellington did not escape the barbs of the editors as they joked that he was "the only living beanstalk" at the Naval Academy. Cadet Ellington excelled in the classroom, and his academic persistence paid off when he passed all his courses with high marks. On June 5, 1909 Eric Lamar Ellington graduated seventh in a class of 230 students.¹⁹

In July 1909, Eric L. Ellington was assigned for midshipman training duty aboard the U.S.S. California, an armored cruiser built in 1904 at the Union Iron Works in San Francisco as a part of the United States' attempt to construct a modern steel navy. The U.S.S. California²⁰ had 18 guns and displaced over 13,680 tons. After the ship was commissioned, it was assigned to the Second Division out of Puget Sound, Washington.²¹

During the U.S.S. California's first tour of duty, the vessel visited various ports along the West Coast of the United States for public relations purposes. The ship also participated in fleet exercises off the Samoan Islands and the West Coast of South America. During the next year, the U.S.S. California operated along the Western United States. In December 1911, the armored cruiser was reassigned to the Hawaiian Islands.²²

While aboard the U.S.S. California, Midshipman Eric L. Ellington learned the various skills necessary to become a junior naval officer: deck watch, ship

¹⁸Ibid.

¹⁹Lucky Bag, 1909; Eric L. Ellington, Midshipman personnel jacket, Special Collections and Archives Division, Nimitz Library, United States Naval Academy.

²⁰In September 1914, the U.S. Navy renamed the ship U.S.S. San Diego. A battleship, Number 40, which was under construction in California, was eventually named for the state.

²¹U.S.S. California, Ships Records, Operational Archives Branch, Naval Historical Center, Washington, D.C.

²²Ibid.

navigation, signal operations, and administrative duties. In Ellington's first fitness report, he received performance ratings ranging from good to excellent. Captain H.T. Mayo of the California wrote that, though Ellington was an intelligent young man, he lacked the self-confidence necessary to become a good officer.²³ After his first rating period, however, Ellington began to gain poise and develop leadership skills; the next fitness report records his personal transformation. Ellington's ratings shifted from mainly good to excellent marks. Mayo now remarked that Ellington was a "zealous, gracious, and promising" young officer. In Ellington's final fitness report aboard the California, Captain Mayo recommended him for promotion to ensign.²⁴

In 1911, Ellington decided to transfer from the U.S. Navy to the U.S. Army. Some contemporary newspaper accounts claimed that Ellington suffered from chronic seasickness, which would easily explain his desire for a transfer. Though this is plausible, his official fitness reports from the U.S.S California always indicated "excellent" health, and never mentioned motion sickness. One local researcher, Rosie Ferrell, argued that Ellington's interest in aeronautical science compelled him to switch to the U.S. Army.²⁵

On November 11, 1911, Ellington was honorably discharged from the Navy and simultaneously accepted a commission into the U.S. Army. After his transfer, Ellington was assigned to the United States 3rd Cavalry at Fort Sam Houston. While at Fort Sam Houston he requested reassignment to the fledgling aeronautical service. Ellington reported to the U.S. Army aviation school at College Park, Maryland, for flight training. He was also stationed at the Palm

²³Eric L. Ellington, Midshipman personnel jacket, Special Collections and Archives Division, Nimitz Library, United States Naval Academy.

²⁴Ibid.

²⁵Eric L. Ellington, Midshipman personnel jacket, Special Collections and Archives Division, Nimitz Library, United States Naval Academy; The Clayton News, November 7, 1979; San Diego Union, November 25, 1913.

Beach, Florida, aviation school. Eventually Ellington was assigned to the 1st Aero Squadron at Texas City, Texas, and at San Diego, California.²⁶

Biography: Lt. Hugh M. Kelly

Hugh Marsh Kelly was born in March 1881 in Louisville, Kentucky. Kelly was the son of Colonel R.M. Kelly, a Unionist who joined the U.S. Army during the Civil War. After the war, Colonel Kelly was a distinguished lawyer in Louisville and the editor for the Louisville Carrier Journal. Kelly trained as a journalist and became a successful newspaperman. Kelly enjoyed writing for both scholarly and popular audiences, and his commentaries on politics and military affairs were widely sought after by the mainstream press. Kelly was also an accomplished artist and illustrator, whose sketches and cartoons were often published in regional newspapers.²⁷

At the turn of the 20th century, Kelly joined the U.S. Army. He served in the Philippine Islands during the Filipino Insurrection, where his artistic skills were put to use as a mapmaker. His ability to draw accurate maps of the mountains and jungles of Luzon distinguished him among his peers. After his tour of duty in the Philippines, Lt. Kelly became commandant and a well-liked professor of military science at State Kentucky University²⁸ in Louisville, Kentucky.²⁹

When problems in Mexico arose, Lt. Kelly was reassigned to the U.S. 26th Infantry Regiment. When Kelly arrived at the headquarters of the U.S. 26th Infantry he was ordered to aeronautical duty. Many of Kelly's friends and relatives spoke of his desire to become a pilot because of his interest in

²⁶Army and Navy Journal, November 29, 1913.

²⁷Louisville Carrier Journal, November 25, 1913.

²⁸Later renamed the University of Kentucky.

²⁹Louisville Carrier Journal, November 25, 1913.

engineering. Lt. Kelly served with the 1st Aero Squadron at Texas City, Texas, and San Diego, California.³⁰

North Island, San Diego, California

In January 1911, Glenn Curtiss, pioneer aeronautical designer and pilot, leased several acres of land on North Island in San Diego Bay to test his hydroplanes for the U.S. Navy. In 1912, Curtiss invited the U.S. Army to share North Island. Altruism was not his main motivating factor, but rather the chance to show to U.S. Army officers his new developments in airframe and engine design. On North Island, Curtiss built a small equipment shed and used a large canvass tent as an aircraft hanger. His employees either camped out on the island or lived in nearby San Diego.³¹

In December 1912, Lt. H. Geiger arrived at North Island to officially establish the first unified U.S. Army Signal Corps aviation school. Army personnel set up camp in the northeast corner of the island. During the next six months, Signal Corps aircraft and personnel arrived from various Army aviation schools throughout the nation. Soldiers removed brush and small scrub trees to clear space for runways. With low wind conditions, North Island was ideal for flying both Curtiss and Wright aircraft.³²

On Monday, November 24, 1913, Lt. Eric Ellington and Lt. Hugh Kelly prepared their Wright C Flyer for an early morning flight. The purpose of the mission was to give Lt. Kelly more flight time in this aircraft type. Kelly sat in the student pilot's seat, while Ellington was next to him in the instructor's position. With dual controls in the Wright Flyer, Lt. Ellington could take over the aircraft at any time.³³

³⁰Army and Navy Journal, November 29, 1913.

³¹Eleretta Sudsbury, *Jackrabbits to Jets: The History of North Island, San Diego, California* (San Diego: Halland and Ojena, 1992), 27-29.

³²Ibid, 27-29.

³³San Diego Union, November 25, 1913; San Diego Union, November 27, 1913.

Army mechanics pushed the Wright Flyer into position on the grass runway. Kelly started the 60-horse-power engine, then Lt. Ellington waved his hand signaling to the mechanics to release the plane. The Wright C Flyer increased speed and took off into the early morning light. With Lt. Kelly at the controls, the plane climbed to around 300 feet and leveled off. After one flight around the field, Kelly turned the plane around and began a "volplane" maneuver. As the Wright Flyer descended to around 200 feet, one of the pilots restarted the engine. The lift caused by the sudden restarting of the engine put the Wright Flyer into a steep dive.³⁴

Both Lt. Kelly and Lt. Ellington struggled for control of the plane, but the aircraft continued to lose altitude. On the ground, pilots and mechanics watched in horror as the aviators fought to regain level flight. The angle of descent carried the Wright Flyer away from observers on the ground and toward Point Loma. As the plane went out of view, spectators on the ground watched as Lt. Kelly braced himself for impact.³⁵

Many onlookers believed that the fall was not high enough to kill the pilots and expected to find the crew alive at the crash site. As soldiers approached, it became apparent that no one had survived the impact. The engine had broken loose from its mountings and crushed both Ellington and Kelly. The impact had been so violent that Lt. Kelly's body was partially embedded into the sand. Ground crews extracted the pilots from the mangled plane and carried their bodies to the Curtiss camp. Later that day the corpses were transported across San Diego Bay to Johnson, Connell, and Saum Mortuary.³⁶

In 1913, the U.S. Army had little experience in determining the probable cause of an air crash. After the accident Captain A.C. Cowan and other Army pilots sifted through the tattered and broken remnants of the Wright Flyer.

³⁴Ibid.

³⁵Ibid.

³⁶Ibid.

Captain Cowan could not find any evidence of structural or mechanical failure in the wreckage. After the brief examination, Cowan ordered the plane burned. In 1913 it was customary when a pilot was killed in a crash to destroy the aircraft. Captain Cowan was also concerned that if the wreckage were stored at the camp, it would have negative psychological consequences on the other pilots.³⁷

News of the deaths of Ellington and Kelly quickly circulated at the Army Aviation School and throughout San Diego. Lt. Ellington was a well-liked and respected army officer and pilot. He was considered the "ace" of 1st Aero Squadron and an outstanding flight instructor. Many stunned citizens of San Diego could not help but remember Ellington's last flight from the previous Friday when he flew for over 40 minutes at an altitude of 3500 feet over San Diego.³⁸

Investigation of the Crash

Because the accident involved fatalities, the San Diego District Attorney's Office required a formal inquiry into the events at North Island. In a strange jurisdictional twist, the city of San Diego conducted an investigation of the U.S. government. Assistant District Attorney General Dempster McKee conducted a coroner's inquest two days after the crash.³⁹

In perhaps the first criticism of American military aviation, well-known pilot and stuntman Lincoln Beachey claimed that the Signal Corps' fleet was ill-maintained. Beachey testified that after a two-week stay at the North Island Army Aviation School, he was stunned to learn that army pilots had to train in obsolete aircraft. Beachey ended his caustic attack of U.S. military aviation policy by suggesting that until the Aeronautical Division was properly funded, it was better for the government to abandon the attempt to form air squadrons. Beachey

³⁷Ibid.

³⁸Ibid.

³⁹ San Diego Union, November 26, 1913.

blamed the cause of the recent crash on the dual propeller system found on the Wright C airplane design. He claimed that when the engine was restarted in flight, the dual propellers created too much lift, causing the plane to pitch violently downward.⁴⁰

McKee called Corporal Arthur E. Mix, chief mechanic of the Army Aviation School at North Island, before the inquest. Mix was reluctant to criticize the U.S. Army but, under McKee's direct examination, Mix finally admitted that flying Wright C Flyers was becoming a dangerous job. The next witness before the jury was Lt. T. F. Dodd, an Army pilot at North Island. Lt. Dodd countered Beachey's claim about the instability of the Wright Flyers. Dodd claimed that he had restarted the engine in flight many times without incident.⁴¹ Finally, San Diego County coroner S. W. Bell concluded that the aviators died from being crushed by the falling plane. The five-member jury concluded that there was no negligence in the deaths of Ellington or Kelly.⁴²

Captain Cowan was called to Washington, D.C. to file an official report on the crash, and to escort the remains of Kelly and Ellington back to their homes in Louisville, Kentucky, and Clayton, North Carolina, for burial. Captain Cowan left San Diego on November 26, 1913, for the East Coast.⁴³

On December 2, 1913, Lt. Eric Lamar Ellington was laid to rest next to his father in a late afternoon funeral at the Clayton City Cemetery in a ceremony conducted by Reverend John E. White and attended by family members, townspeople, Captain Cowan, and a classmate from the U.S. Naval Academy. Ellington's service was conducted with full military honors. Near the end of the

⁴⁰Ibid.

⁴¹Ibid.

⁴²Coroner's Inquest Report, November 26, 1913, Office of the Medical Examiners, County of San Diego.

⁴³San Diego Union, November 26, 1913.

service, an honor guard from nearby Fort Caswell fired several volleys and played taps in honor of the aviator.⁴⁴

Ellington Field, 1917-1920

In August 1914, Europe erupted into a war that soon engulfed the entire continent. By the next year a vast system of trenches stretched across France. Though trench warfare was characterized by a static defensive struggle, the airplane was used during the conflict as an offensive weapon. In 1917, the United States entered the war. The United States needed hundreds of pilots to fulfill its commitment to the Allies. To meet this demand for pilots, the War Department built numerous pilot training bases throughout the nation.⁴⁵

In 1917, the U.S. government purchased 1,280 acres of land from Dr. R. W. Knox and the Wright Land Company 25 miles south of Houston near Genoa, Texas. War Department officials selected the Houston area because of the weather conditions necessary for flight training. Soon after construction began, the Secretary of War announced that the new base would be named after Lt. Eric Lamar Ellington, an army aviator who was killed four years earlier at North Island Army Aviation School in California.⁴⁶

The American Construction Company, awarded a contract to build the airfield, began construction in September 1917. At one point during construction of the airfield, civilian workers went on strike. To avoid delays caused by labor problems, U.S. soldiers from nearby Camp Logan were brought in to continue work on the airfield. The labor disputes were settled and the striking workers returned to work. Draft mules were used to pull equipment to clear and smooth the earth to lay concrete foundations. Within two months, most of the buildings on the base were completed. Dozens of wooden buildings served as headquarters,

⁴⁴Clayton News, December 3, 1913.

⁴⁵For an excellent overview of the First World War see James L. Stokesbury's *A Short History of World War I*.

⁴⁶Houston Chronicle, September 30, 1917; "Historical Background Ellington Air Force Base, Houston, Texas, Airports-Ellington File, Texas Room, Houston Public Library.

maintenance, and officers' quarters. Enlisted men had to bivouac in tents. Finally, tall prairie grass near the hangers was cleared of obstacles and mowed short for runways.⁴⁷

In November, the 120th Aero Squadron was transferred from Kelly Field to Houston. Only a few U.S. Army Air Service aircraft arrived with the squadron. Most of the Curtiss JN-4 Jennys were shipped in wooden crates by railcar. In December, the first planes from Ellington Field flew over Houston for a benefit for the American Red Cross. A flight of ten JN-4s took off from grass runways and followed the interurban tracks stretching north from Genoa to Houston. Throngs of men, women, and children watched in amazement as the JN-4s flew overhead. The roar of the aircraft was almost drowned out by the wail of sirens and factory whistles as the planes passed over. As the planes circled the city, they dropped paper flyers for the American Red Cross. Next, the formation flew to Camp Logan and then turned south toward Galveston Island. The entire flight took about an hour.⁴⁸

The base was finished by December, but Ellington Field had a chronic shortage of trained personnel. With only 220 men stationed at the airfield, Army officials needed men with a variety of skills, such as painters, draftsmen, cooks, motorcycle drivers, mechanics, and accountants. Personnel problems were so grave that the War Department allowed officials at Ellington to use the "direct enlistment" of men to fill the ranks; this allowed a local man to enlist in the U.S. Army but report directly to Ellington Field.⁴⁹

During the First World War, Ellington Field served as a base for advanced flight training for the United States Army Air Service. In 1917, flight training occurred in two phases: primary and advanced. Primary training took eight weeks and consisted of pilots learning basic flight skills under dual and solo

⁴⁷Ellington 1918, 1-5.

⁴⁸Houston Chronicle, December 3, 1917.

⁴⁹Ibid.

instruction. Flight cadets were then transferred to another base for advanced training. At advanced training bases cadets learned flying techniques that made them proficient pilots. Advanced training took up to six weeks of classroom and flight instruction. Pilot training included practice on bombing and gunnery ranges. In 1918, Ellington Field's gunnery and bombing ranges were at a small peninsula jutting into the Gulf of Mexico just off San Leon, Texas.⁵⁰

Because of the lack of military pilots in 1917, the U.S. Army Air Service relied on civilian pilots to help train cadets. Civilian pilots often had more flight experience than military aviators. During the war, Ellington Field had seven civilian instructors: W.F. Sullivan, H.B. Crewdson, E.W. Cleveland, G.K. Hood, W.A. Pack, O.W. Hoover, and E.H. Lee. Upon graduation, a flight cadet would be christened a military aviator. After graduation, an aviator was shipped to Europe for more training and assignment to a combat squadron.⁵¹

For the first months of operation, Ellington Field had no pilot fatalities. Within the year, however, this record changed for the worse. By August 1918, Ellington Field recorded the most pilot fatalities of the 18 U.S. Army Air Service training bases in the United States. By 1918, however, Ellington Field was also known throughout the nation as an airfield of "firsts." Ellington had the first camp newspaper, the first gunnery and bombing ranges, the first "canteen girls," and the first aerial ambulance in American military history.⁵²

By January 1919, the future operational status of Ellington Field was unknown. Many local officials speculated that the U.S. government would keep Ellington Field open because of the outstanding combat record established by Ellington-trained pilots in Europe. Locals also pointed to the optimal weather conditions in south Texas area for flight training. In 1920, Ellington Field was

⁵⁰Alfred Goldberg, *A History of the United States Air Force* (New York: Arno Press, 1958), 18-21; "Historical Background Ellington Air Force Base," Houston, Texas, Airports-Ellington File, Texas Room, Houston Public Library.

⁵¹Ellington 1918, 29-33.

⁵²Houston Chronicle, December 31, 1918; Houston Chronicle, May 6, 1918; Ellington 1918, 29-33.

deactivated as an active duty airfield, however, and a small caretaker unit was assigned to the facility for administrative reasons. In the future the only flight activity at Ellington Field would be Army pilots flying from Kelly Field practicing touch and go landings.⁵³ With the return to a peacetime economy, military training facilities such as Ellington Field were deemed unnecessary.

Ellington Field and the U.S. Army National Guard, 1923-1928

Though the U.S. Army National Guard can trace its lineage back to the American Revolution, the modern National Guard is a recent development. The direct ancestry of the modern National Guard was the 19th century state militia, which augmented the regular Army. After the Spanish-American War, the U.S. Army began to reevaluate the role of the militia. The militia's performance in the Spanish-American War was mixed. Because of poor training and lack of equipment, many militia outfits did not fare well in combat.⁵⁴

Another problem for the U.S. Army was the militia's uncoordinated nature. The strength level of individual militia units was not uniform. This lack of knowledge hindered the proper deployment of troops. By the turn of the new century, the U.S. military was swept with a wave of reform. Reformers called for the establishment of a well-trained and -equipped reserve to augment the regular Army in times of national emergencies. In 1903, Congress passed the Dick Act to replace the state militias with a new National Guard system. The Dick Act required each state or regional groups of states to form National Guard units with prescribed levels of combat-trained troops.⁵⁵

After the passage of the Dick Act, Texas militia units combined to form the U.S. 36th Infantry Division, which the War Department federalized on July 18, 1917. The division actually consisted of men from both Texas and Oklahoma.

⁵³"Historical Background Ellington Air Force Base," Airports-Ellington Field File, Texas Room, Houston Public Library, Houston, Texas.

⁵⁴National Guard of the State of Texas, 1940 (Baton Rouge: Army and Navy Publishing Company, 1940), 33-34.

⁵⁵*Ibid.*, 34.

After arriving in France in August, the National Guardsmen began to train for combat. While training, the division was attached to the French Fourth Army. The U.S. 36th Division fought with distinction in the vicinity of the Somme River. When the war was over, the division was deactivated and it returned to the United States.⁵⁶

Combat during the First World War had a dramatic effect on the U.S. Army. On the European battlefield, American soldiers were exposed to new military technology. Advancements in weaponry such as chemical warfare, tanks, and aircraft altered the views of some American military planners. The experience also had an impact on the way the military viewed the National Guard system. Though the National Guard was supposed to establish a pool of well-trained divisions, these units often needed additional training before being introduced to combat.

Because of these problems, many military leaders pushed for the reorganization of the National Guard system. In 1920, Congress passed the Reorganization Act to allocate additional funds to the U.S. National Guard for training and equipment. Throughout the early 1920s, the newly reorganized National Guard began adding aviation squadrons to their infantry divisions.⁵⁷

The unofficial lineage of U.S. National Guard aviation can be traced back to New York. In 1908, the New York National Guard had several Signal Corps officers interested in aeronautics who established an aviation squadron. After three years of experimenting with balloons and hand-built aircraft, the squadron received its first aircraft from the Curtiss Aircraft Company.⁵⁸

National Guard aviation units received little or no financial assistance from state or federal coffers. In most cases, individual members provided their own

⁵⁶Ibid. 37.

⁵⁷Charles Joseph Gross, *Prelude to the Total Force: The Air National Guard, 1943-1969* (Washington, D.C.: GPO, 1985), 1.

⁵⁸Ibid. 1.

aircraft and funds for maintenance. When the United States entered the First World War, the War Department decided not to activate any of the National Guard air units. All U.S. Army Air Service aviators during the European conflict came from regular Army air squadrons.⁵⁹

The Reorganization Act of 1920 was the genesis of the first officially sponsored National Guard aviation units. When the military reorganized the National Guard, the U.S. Army Air Service pushed for the formation of air units within all National Guard divisions. General William "Billy" Mitchell was the man behind the campaign. The War Department reluctantly agreed with General Mitchell's assessment. In 1923, the U.S. Army authorized National Guard infantry divisions to form observation squadrons. Within nine years all 19 National Guard divisions had aviation units.⁶⁰

In May 1923, the War Department had ordered the small caretaker force at Ellington Field to dismantle all remaining structures and to sell them as surplus. Orders to abandon Ellington Field were abruptly halted, however, when the War Department authorized the Texas National Guard to establish an aviation squadron. General John A. Hulen, commander of the U.S. 36th Division, announced the formation of the 111th Observation Squadron. General Hulen assured the citizens of Houston that the new air squadron was not a daredevil outfit. Hulen believed that the reactivation of Ellington Field as a reserve base would provide Houston an airfield and rekindle public interest in military aviation. With the news of the formation of the Air Squadron, one Houston Chronicle reporter christened the 111th Observation Squadron "Houston's Own," thus beginning a long relationship between Houston and the National Guard.⁶¹

Major Bernard Law was responsible for the new 111th Observation Squadron locating in Houston. Competition for the site of the squadron's headquarters was

⁵⁹Ibid. 1-2.

⁶⁰Ibid. 1-2.

⁶¹Houston Chronicle, May 15, 1923.

fierce. Many cities throughout Texas, including Dallas and San Antonio, vied to be the home base for the fledgling aviation unit. The combination of Major Law's persistence, his aviation experience, and Ellington Field's aeronautical history led to the Texas National Guard selecting Houston.⁶²

The 111th Observation Squadron was officially activated on June 29, 1923, in the Houston Light Armory building. The Squadron was organized to provide mapping, photography, and reconnaissance support for the U.S. 36th Infantry Division. Major Law was tapped as commander of the 111th Observation Squadron. He recruited men with both aviation and combat experience from the Houston area to join the squadron. In 1923, the unit had an authorized strength of 130 officers and enlisted personnel. While the 111th Squadron awaited the arrival of aircraft, the Guardsmen drilled in the Houston Municipal Auditorium.⁶³

At Ellington Field, the 111th Observation Squadron used several of the remaining structures and hangers from the war for weekend training. The buildings, however, had to be refitted with new electrical, water, and telephone lines. Soon Ellington Field was alive with activity, though the renovation process could not compare to the original base construction. The 111th Observation Squadron received surplus Curtiss JN-6Hs and DH-4 De Havilands from Kelly Field. The unit was also given surplus uniforms, shoes, and hats from Fort Sam Houston. Once aircraft were stationed at Ellington Major Law hired several mechanics to work full-time at Ellington Field.⁶⁴

In December 1923, the 111th Observation Squadron participated in its first training exercise. Aircraft from Ellington Field joined U.S. Army M3s and SE-5s from Kelly and Brooks Fields for bombing and gunnery practice. Gunnery practice took place about five miles off Galveston Island in the Gulf of Mexico. Aircraft towed giant 12-foot-by-3-foot targets while the JN-6H and DH-4 fighters

⁶²Ibid.

⁶³Ibid.

⁶⁴Houston Post, May 16, 1923; Houston Chronicle, May 15, 1923; Houston Chronicle, September 3, 1923.

attacked the moving targets. In January 1924, the 111th Observation Squadron flew its first cross-country flights. During this exercise many of the first-time pilots received enough flight time to qualify for solo and dual ratings.⁶⁵

Though the 111th Observation Squadron had storage and maintenance facilities at Ellington Field, the squadron did not have a true headquarters building. Major Law requested funds from Texas and the U.S. National Guard, but unfortunately monies were not available for new buildings. Law, however, was able to convince several local Houston businessmen to donate space in a downtown office building. In 1924, the 111th Observation Squadron headquarters was relocated to the Gas Company Building in downtown Houston.⁶⁶

The new downtown headquarters served a variety of roles for the 111th Observation Squadron: a central meeting point, administrative offices, and training classrooms. The new offices were adorned with mementos from the war and aeronautical memorabilia. An administrative building was also important on foul weather days. When rain showers turned dirt runways at Ellington Field to mud, the squadron needed a place to conduct weekend training.⁶⁷

The use of downtown facilities, however, highlighted the two major inadequacies of Ellington Field: deteriorating facilities and the great distance of the field from Houston. Many of the officers in the 111th Observation Squadron believed that the Squadron and Houston needed a modern airport located near the city. Major Law was a prime mover behind the push to build a new airport. As the president of the Houston chapter of the National Aeronautics Association, Law was convinced that the construction of a municipal airport would benefit Houston's economy. Law also wanted the 111th Observation Squadron to have new training facilities located closer to most members of the squadron.⁶⁸

⁶⁵ Houston Chronicle, December 6, 1923.

⁶⁶ Houston Chronicle, January 27, 1924.

⁶⁷ Ibid.

⁶⁸ Houston Chronicle, September 3, 1924.

Though the possibility of a new municipal airfield endangered the existence of Ellington Field, rumors circulated throughout the Texas National Guard that the War Department wanted to transfer the aviation schools at Kelly and Brooks Fields to Houston. During the early 1920s, neighborhoods near Brooks and Kelly Fields began to encroach on the military installations. Many in the War Department believed that the safety and efficiency of these training fields were compromised by these demographics shifts. The transfer of U.S. Army aviation schools to Ellington Field, however, remained only a rumor.⁶⁹

In 1925 General Mitchell conducted a "flying tour" of all National Guard Observation Squadrons throughout the United States. On a return trip from the West Coast, General Mitchell came to south Texas for an inspection of Ellington Field. As Mitchell's transport flew near Ellington Field, he was met by a formation of Curtiss JN-6s. Mitchell also watched the 111th Observation Squadron practice aerial gunnery. Once on the ground, Mitchell commented that the 111th Observation Squadron was one of the best units in the nation. Mitchell spoke to enthusiastic crowds at Ellington Field confirming his belief that a strong Air Force was vital to national defense. He commented that "the old centers of boundaries have been abolished since the airplane's use..." and also stressed the importance of the development of nonsubsidized civil aviation.⁷⁰

The first fatalities for the 111th Observation Squadron occurred when Captain Emil Wagner and Lieutenant L.T. McLaughlin were killed in a freak accident. While putting his Curtiss JN-6 into a steep dive, the left wing of their aircraft collapsed. Pilots flying in other aircraft and spectators on the ground watched in horror as the plane tumbled and then struck the ground. Miraculously both men survived the crash, but both later died in a Houston hospital.⁷¹

⁶⁹ Houston Chronicle, November 21, 1926.

⁷⁰ Houston Post, July 23, 1925; Houston Post 24, 1925.

⁷¹ Houston Chronicle, December 10, 1923.

The Squadron lost one of its best pilots when Captain John S. Ansley crashed at Ellington Field during a routine training flight. Captain Ansley was practicing the dangerous maneuver of recovering from a tailspin. Ansley began the maneuver at an insufficient altitude and was unable to recover from the tailspin. Captain Ansley's JN-6 slammed into a pile of stacked lumber and he died later from injuries sustained in the collision.⁷²

Throughout 1924, the 111th Observation Squadron participated in various training exercises. The Squadron flew to La Grange, Texas, to participate in a drill with the U.S. 36th Infantry Division. Pilots from the 111th Squadron dropped smoke bombs from treetop level, adding realism to the combat simulation. In July, the Squadron trained with the entire division on Galveston Island. At the Galveston maneuvers, U.S. Army aviators from Kelly and Brooks Fields taught the National Guard pilots new flying techniques. During the summer exercises 14 aircraft flew over 50,000 miles. Training was so intense that the 111th Squadron's Curtiss JN-6s were literally worn out. U.S. Army inspectors from Kelly Field grounded the squadron because the aircraft were deemed unsafe for flying.⁷³ The aircraft were eventually replaced with newer aircraft from Kelly Field.

In 1924, cattle in Genoa, Texas, were inflicted with an outbreak of foot and mouth disease. Harris County officials feared that the disease would spread so they quarantined the southern portion of the county, and flights out of Ellington Field were temporarily suspended. During the quarantine period, men of the 111th Observation Squadron drilled at the Houston Municipal Auditorium.⁷⁴

By 1926, Houston was in the process of planning a modern municipal airfield so that Houston would remain a center of commerce and trade in south Texas. Rival cities San Antonio and Dallas had already constructed civil airfields.

⁷²Houston Chronicle, February 24, 1924; Houston Chronicle, February 25, 1924.

⁷³Houston Chronicle, May 4, 1924; Houston Chronicle, May 27, 1924; Houston Chronicle, July 20, 1924.

⁷⁴Houston Chronicle, September 27, 1924; Houston Chronicle, September 28, 1924; October 2, 1924.

Even smaller cities such as Waco, Texas, were contemplating building an airport. By 1927 an airport was under construction near the Garden Villa area on Houston's Telephone Road. The completed facility was named the Houston Municipal Airport.⁷⁵

The enticement of new aviation facilities was too much for the Texas National Guard. By 1927 the facilities at Ellington Field were obsolete. Neither the Texas National Guard nor the War Department had the funds to renovate Ellington Field, so the 111th Observation Squadron signed a long-term lease with the Houston Municipal Airport and moved into new facilities in the southwestern corner of the airfield. New buildings included five cottages built for full-time aircraft mechanics and their families and two steel hangers complete with storage and locker rooms.⁷⁶

The Texas National Guard purchased the abandoned remaining usable structures at Ellington Field. The U.S. 36th Division bought buildings that once housed the library, hospital, and bachelors' quarters. Engineers disassembled the wooden buildings and transported them to the new Texas National Guard headquarters in Palacios, Texas. By 1928, Ellington Field was a sea of tall prairie grass. In February, a fire engulfed the entire airfield. Though the Houston Fire Department responded to the blaze, the remaining structures were consumed. All that remained from the fire were concrete foundations and a metal water tower. Throughout the next 12 years, the War Department leased out the vacant land to local ranchers for pasture.⁷⁷

Ellington Field and the Second World War, 1940-1945

On September 1, 1939, World War II began in Europe when German military forces attacked Poland. Soon Europe was enveloped in the most costly

⁷⁵ Houston Chronicle, December 12, 1927; Houston Post, August 6, 1927.

⁷⁶ Ibid.

⁷⁷ Houston Post, August 14, 1927; Houston Post, August 14, 1927; Houston Chronicle, June 6, 1940.

war in human history. War had already begun on the Asian continent in 1931 when Japan invaded Manchuria. With Japan's seizure of the Marco Polo Bridge on the Chinese mainland in 1937, Japan and China were fighting a full-scale war. By 1940, expansionistic policies of Germany, Italy, and Japan had plunged most of the globe into war. That same year, the United States, though still a neutral country, began a national defense plan.⁷⁸

National defense advocates outlined a plan that included the expansion of the Army, the Navy, and the Marine Corps through a peacetime draft, development of new weapons systems, construction of new military bases, and a Lend-Lease program. Germany's successful use of aircraft to defeat Poland and France highlighted aviation's potential as a military weapon. This recognition led Congress to authorize an unprecedented expansion of the U.S. Army Air Corps (USAAC). Congress authorized the construction of 50,000 aircraft by the end of 1941 and the same number of aircraft annually until the end of the war in Europe. American aircraft manufacturers, however, were unprepared for the task. The USAAC proposed a more realistic program of 18,000 aircraft per year.⁷⁹

Expansion of the USAAC fleet created a great need for trained pilots, navigators, and bombardiers to fly and operate the new aircraft. In Washington, D.C., Representative Albert Thomas (D-Tex) from Houston pushed for the resurrection of Ellington Field. Construction of a new base in the Houston area made sense for several reasons. First, flying conditions in the Houston area were perfect for pilot training. Second, the construction of a base in south Texas was necessary to protect U.S. oil refineries in the area. By the 1940s, Texas' oil refineries produced most of the petroleum products in the United States. War Department officials believed that these facilities were vulnerable to enemy attack from the Gulf of Mexico. Finally the site made sense because the U.S. government

⁷⁸For an good overview of the origins of the Second World War see James L. Stokesbury's *A Short History of World War II*.

⁷⁹Goldberg, 43-45, 47-48.

still owned the old airfield site which was now reasonably accessible by highway and rail systems.⁸⁰

In June 1940, the Tellepson Construction Company of Houston, Texas, was awarded the contract for the construction of the new airfield's infrastructure and 160 buildings. During the first phase of construction, Tellepson hired over 200 men to work on the site. Design of the new base was in stark contrast to the facility that was built during the First World War. The new facility was considerably larger than the old base and required concrete runways to accommodate the heavier and larger military aircraft.⁸¹

Tellepson Construction Company first rebuilt the basic infrastructure of electric, phone, sewer, and water lines. Engineers considered using the old water tower, but the system's fresh water supply would be inadequate. Establishing a telephone communication system at Ellington would require over 140 miles of wire. The government eventually brought in the U.S. Army Corps of Engineers to accelerate the construction process. Soon 1,500 men worked day and night to complete the airfield.⁸²

From an engineering aspect, the construction of the runways and apron system was a monumental task. Architects designed a plan for an apron and six runways. Construction workers poured over 3,470,332 cubic feet of concrete into an 8-inch-thick slab. In 1940, Ellington Field could boast it had the largest whole piece of cement in the United States. Five control towers directed aircraft from the aprons to runways and monitored incoming aircraft. Two 42,000-square-foot steel hangers were built to store aircraft and handle all maintenance operations. The hangers, however, could not store all the aircraft, so a steel tie-down system was installed within the concrete apron. During the war years, most aircraft were parked in the open air. The construction crews built 11 wooden buildings for

⁸⁰Houston Chronicle, June 6, 1940.

⁸¹Houston Chronicle, June 6, 1940.

⁸²Houston Chronicle, January 18, 1941.

headquarters, quartermaster, maintenance, public affairs, and security divisions, 5 mess halls, and 74 barracks for living quarters. The two-story barracks held 67 men. Ellington Field's premier medical facilities (13 buildings) formed the most modern medical complex in south Texas. Army doctors had the latest in diagnostic equipment, an operating room, a 250-bed hospital, and a dental clinic. Several Houston area women's garden clubs—under the coordination of the Texas Garden Clubs Good-Will Committee—planted flowers, shrubs, and trees on the base.⁸³

On November 23, 1940, personnel from the 276th Quartermaster Company arrived in Houston to coordinate the opening of the base. Soon officers and enlisted personnel of 65th Base Group arrived to formally take over the field. Eventually the 69th, 70th, 71st, 72nd, 74th, 75th, and 76th School Squadrons were transferred to Ellington Field to conduct flight training. In December, Lt. Colonel Walter H. Reid took command of the USAAC Advanced Flying School. Reid was a combat veteran from the First World War and, during the 1920s, a former commander of the 111th Observation Squadron.⁸⁴

In June 1941, AT-6s arrived in Houston from the North American Aviation plant in Grand Prairie, Texas. Due to delays in the construction of the runways, the new training aircraft were diverted to Houston Municipal Airport. The AT-6s were temporarily stored in the 111th Observation Squadron's hanger. Once the runways were ready, U.S. Army pilots ferried the AT-6s on a brief cross-town flight. The AT-6s were augmented by advanced training aircraft, AT-10s and AT-11s, and eventually over 350 training aircraft were stationed at Ellington Field to provide the USAAC two-phase (primary and advanced) pilot training. Once pilots acquired flying proficiency, they received either a fighter or bomber assignment.⁸⁵

⁸³Houston Chronicle, April 16, 1941; Houston Chronicle, May 18, 1941; Houston Post, May 4, 1941; Houston Press, August 22, 1941.

⁸⁴Houston Press, May 29, 1941.

⁸⁵Houston Chronicle, June 18, 1941.

During the Second World War, Ellington Field was the site for advanced flight training for bomber pilots. Initial plans called for the training of 2,800 bomber pilots per year at Ellington Field or about ten percent of the total number of pilots trained throughout the United States. Beginning at five-week intervals, classes of 274 cadets entered the 10-week course. Cadets moved from the AT-6 to the more complex twin-engine AT-10 or AT-11. At that level, cadets were taught how to fly the larger multi-engine aircraft. After successful completion of the advanced training course, graduates were transferred to different airfields for more training in actual bombers. Eventually the USAAC Advanced Flying School was transferred to Blackland Field in Waco, Texas.⁸⁶

Ellington Field was also a site for the USAAC Bombardier School, also known as "the Bombardment Academy of the Air." At Ellington Field, officials planned to train 4,480 bombardier cadets per year. Bombardier cadets spent most of their time during the 10-week course in the classroom learning the skills necessary to accurately drop bombs on enemy targets. Hands-on training for the bombardier cadets took place over the Gulf of Mexico. In AT-10s or AT-11s, bombardier students practiced bombing several small islands in Matagorda Bay or small target boats anchored in the bay. The Bombardier School remained at Ellington Field until 1942.⁸⁷

In 1943 Ellington Field became the site for advanced navigator training. The U.S. Army Air Force (USAAF, renamed from the United States Army Air Corps in 1941) transferred the Navigator School from Mather Field in California to Houston. The USAAF Navigator School consisted of a rigorous 18-week course consisting of instruction in celestial navigation and dead reckoning. To complete the course, cadets were required to have 100 hours in navigating both local and long-range flights.⁸⁸

⁸⁶Houston Chronicle, October 29, 1941; Houston Chronicle, March 18, 1945.

⁸⁷Houston Press, January 12, 1942.

⁸⁸Houston Chronicle, March 18, 1945.

By 1944 the Navigator School used instructors with combat experience to teach classes. Veteran navigators from every theater of operations lectured cadets at Ellington Field. These lectures were invaluable to cadets because the veteran navigators gave their students insights into navigating under combat conditions and life overseas. From 1941 to 1945 the Navigator School graduated 4,000 USAAF navigators that were assigned to every theater of operations during the Second World War.⁸⁹

When Ellington Field was completed, nothing was left from the original airfield. Soon after Ellington reopened, however, several enlisted men made an interesting discovery. The mess bell from the old Ellington Field, affectionately known as "Oscar," was moved to Kelly Field in 1920 when the base was deactivated. Unfortunately, enlisted men at Kelly Field would not return the bell without a monetary incentive. After pooling their money, a small group of enlisted men and officers purchased the mess bell and returned it to Ellington Field.⁹⁰

Col. Reid wanted to link the new airfield with the Ellington Field of the past, so he commissioned an artist to paint a portrait of Lt. Eric Lamar Ellington to hang in the Headquarters Building. Reid chose Mrs. E. Richardson Cherry, a well-known local artist (and his mother-in-law), to paint Lt. Ellington. Mrs. Richardson used an old photograph of the young aviator standing in front of his Wright C Flyer at North Island. The finished painting was hung in the display window of the Sakowitz Brothers department store until Reid had the painting placed in a prominent area of the just-completed Headquarters Building.⁹¹

In 1942 John Hunter Ellington of Greensboro, North Carolina, was assigned to Ellington Field for advanced flight training. After his arrival in Houston, Cadet Ellington was struck by the fact that the Houston airfield bore his last name. After

⁸⁹Ibid.

⁹⁰Houston Chronicle, April 25, 1941.

⁹¹Houston Press, May 28, 1941.

several friends remarked on the similarity, Ellington stopped by the Public Affairs Office to investigate the history of the field. When the Public Affairs Officer told him that the field was named for a deceased army aviator from North Carolina, Ellington wondered if he was related to the long-dead pilot. Cadet Ellington wrote his cousin Lura Ellington in North Carolina, who replied that John was indeed a distant cousin of Lt. Eric Lamar Ellington.⁹²

The 111th Observation Squadron in the Second World War

In 1933 the War Department authorized a livery for the 111th Observation Squadron. Lt. Earl Showalter designed a distinctive insignia, "the Ace in the Hole": A large lone star reflected the squadron's Texas heritage, while the colors white and black represented two items essential to the Texas economy—cotton and oil. An ace in the hole signified the squadron's ability to always win in battle. During the 1930s, the 111th Observation Squadron continued to fly out of Houston Municipal Airport. With a move to a new airfield, the USAAC gave the squadron new O-2 aircraft, which the squadron flew until they were replaced with the newer O-38s three years later. When war broke out in Europe in the late 1930s, the 111th Squadron was issued more advanced O-47s and O-43s for reconnaissance missions.⁹³

In response to the European war and the United States' new national defense program, on November 25, 1940, the War Department federalized the Texas National Guard. By January 1941, the entire U.S. 36th Infantry Division (Texas) and the 111th Observation Squadron had transferred from Houston to Camp Bowie in Brownwood, Texas. For the men of the Ace in the Hole squadron, the move to Brownwood was the first of 15 stops over the next 21 months.⁹⁴

⁹²Untitled, Public Relations Office, Ellington Field, 1942. Airports-Ellington Field File, Texas Room, Houston Public Library, Houston, Tx.

⁹³111th Fighter Interceptor Squadron File, Archives, History Office, Texas Air Texas Guard, Ellington Field, Houston, Tx.

⁹⁴From Jennies to Jets: The Story of the 111th Squadron 1923-1973, 46-47.

The 111th Observation Squadron participated in combined war games with the U.S. 36th Division and the U.S. 45th Infantry Division (Oklahoma) in Abilene, Texas. During this drill O-47s and O-43s dropped dummy bombs, sacks of flour, on "enemy" units to simulate bombing runs. It was the first time for these National Guard Divisions to fight in simulated warfare. Lack of equipment and improvised weapons reflected the poor state of the pre-Pearl Harbor American military.⁹⁵

In August 1941, the 111th Squadron and the U.S. 36th Infantry Division participated in the Louisiana Maneuvers, the first peacetime war games between two field armies in American history. Simulated combat took place in eastern Texas and western Louisiana. Texas National Guardsmen were assigned to the U.S. 3rd Army, commanded by General Walter Krueger. The 3rd Army was the defensive force code-named "Red," while Lt. General Benjamin Lear commanded the U.S. 2nd Army's "Blue" aggressor force.⁹⁶ While the infantry slogged its way through the region's piney woodlands, the 111th Observation Squadron flew reconnaissance missions for the Red force. The Blue force was victorious in this first phase of the Louisiana Maneuvers. Several months later, however, the Texas National Guard participated in another large-scale training drill in South Carolina, and the Texans were on the victorious side. After the South Carolina Maneuvers, the entire division returned to Texas.⁹⁷

On December 7, 1941, Japanese Naval Air Force air units attacked U.S. military installations throughout the Hawaiian Islands. By the end of the week, the United States was involved in a two-ocean war with Japan, Germany, and Italy. Fearing that oil-refining facilities in Texas were vulnerable to enemy attack, the War Department sent the U.S. 36th Division on a series of training stops

⁹⁵Ibid. 51.

⁹⁶Ibid. 51; Carlo D'este, *Patton: A Genius For War* (New York: Harper Collins, 1995), 395-396.

⁹⁷From *Jennies to Jets: The Story of the 111th Squadron 1923-1973*, 51.

throughout the nation and assigned the 111th Observation Squadron to submarine patrol duty in the Gulf of Mexico.⁹⁸

By 1941, the 111th Squadron flew a variety of reconnaissance aircraft: O-47s, O-43s, and O-52s. Anti-submarine duty was only temporary, and soon the squadron transferred to an airfield in Augusta, Georgia. In Georgia the 111th Squadron received A-20s and P-43s. During the stay, pilots accumulated flight time in their new aircraft. The next assignment for 111th Observation Squadron was a familiar one, to provide coastal defense and long-range patrols of the Caribbean Ocean.⁹⁹

By spring 1942, the officers and enlisted personnel of 111th Observation Squadron were reassigned to Fort Dix, New Jersey, but left the fleet of aircraft in Georgia. At Fort Dix, the Squadron began the arduous administrative process necessary for deployment overseas. In October, the Texans finally sailed from New York City to Great Britain on the famed ocean liner, the Queen Mary. After disembarking in Gurock, Scotland, the 111th Observation Squadron moved by railroad to Ipswich, England, and then by truck to Wattisham Station, a Royal Air Force Base, 15 miles from the town of Ipswich.¹⁰⁰

Officers and enlisted personnel received lectures on surviving bombing raids, rules on blackouts, and how to decipher English currency but, unfortunately for the disappointed Texans, no new aircraft. Three weeks later, the 111th Observation Squadron was transported back to Gurock where they boarded the Letitia, a Canadian cargo vessel. After a week anchored at the port, the Letitia steamed out of Gurock under a veil of secrecy.¹⁰¹

⁹⁸Ibid. 51.

⁹⁹Ibid. 51.

¹⁰⁰"The 111th Squadron History," 4-5, 111th Fighter Interceptor Squadron File, A chives, History Office, Texas Air Texas Guard, Ellington Field, Houston, Tx.

¹⁰¹Ibid. 5.

From Scottish waters, the Letitia traveled south into the Atlantic Ocean. Tension among the crew and passengers rose when the ship passed through the Straits of Gibraltar into the Mediterranean Sea, slowly entering a combat zone. The Letitia dropped anchor a mile off the coast of Algeria. Operation Torch—the Allied invasion of North Africa—was about to commence.¹⁰²

Throughout the evening of November 8, 1942, Royal Navy ships bombarded the Algerian coast with naval gunfire. The next morning, men from the 111th Observation Squadron were landed at Arzew, Algeria. The Texans erected tents and uncrated supplies and equipment at the makeshift airfield; before the arrival of their aircraft, the men of the 111th Squadron had little else to do. On November 24, 1942, the Ace in the Hole Squadron finally received its first aircraft: A-20 Havocs.¹⁰³

In December 1942, the 111th Observation Squadron moved to a new airfield at Oujda, French Morocco, where they combined with another squadron to form the 68th Observation Group. While stationed in Morocco, the 111th Squadron received P-39 Aircobras. In French Morocco, the Texans flew their A-20s and P-39s and practiced aerial gunnery, but did not receive any combat assignments. In March, the 111th Squadron received P-51 Mustangs, and two months later was moved to Nouvian, Algeria, where the USAAF changed the unit's designation from an observation to a reconnaissance squadron. The 111th Reconnaissance Squadron's first combat assignment consisted of anti-submarine missions off the North African coast but, otherwise, the 111th Squadron fought boredom and cold desert winters more often than the Germans.¹⁰⁴

By the summer of 1943, Allied forces had captured North Africa from the German Army. Although Germans surrendered in large numbers, many of the vaunted German Africa Korps eluded capture and escaped to Sicily. In July, the

¹⁰²Ibid. 6.

¹⁰³Ibid. 7-8.

¹⁰⁴Ibid. 9-10.

Allies launched the invasion of Sicily. The 111th Reconnaissance Squadron transferred to Gela. Unfortunately, in the first week of battle, many 111th Squadron aircraft were damaged in a German air attack. While stationed in Sicily, the squadron saw little combat.¹⁰⁵

In September 1943, the Allies invaded continental Italy. At Salerno, fighting on the ground was fierce. The 111th Squadron camped near Salerno and lived under the constant threat of German air attack. During the tortuous drive through the mountainous Italian peninsula, the 111th Squadron provided valuable reconnaissance information and close air support for the American army at Salerno, Anzio, and on the drive north to Rome. On June 4, 1944, American forces captured Rome. Two days later, the Italian campaign was overshadowed by the along-awaited invasion of Europe—D-Day.¹⁰⁶

During the invasion of Normandy in June, the 111th Reconnaissance Squadron awaited their next combat assignment on the island of Corsica. As the Allied Armies attempted to break out of the hedgerows of northern France, another invasion of Europe was launched in southern France. Though not as well known as Normandy, Operation Anvil provided a vital diversion for the D-Day invasion. Operation Anvil and the subsequent drive into Germany would prove to be the 111th Squadron's most important assignment of the war.¹⁰⁷

In August 1944, the 111th Reconnaissance Squadron arrived in France. Operating from airfields near Lyons, France, the 111th Squadron flew its first missions in support of the U.S. 7th Army. In October, the 111th Squadron was transferred to the 1st Tactical Air Force, and renamed the 111th Tactical Reconnaissance Squadron, flying out of airfields at Azelot, France. As the U.S. 7th Army advanced across southern France, fighting became more intense, and the 111th Squadron continued to supply ground troops with reconnaissance

¹⁰⁵Ibid. 11.

¹⁰⁶Ibid. 11-12.

¹⁰⁷Ibid. 13.

information and close air support.¹⁰⁸ While conducting short- and long-range reconnaissance missions, the 111th Squadron flew two P-51 Mustangs per mission. Pairs of P-51 Mustangs from the 111th Squadron flew ahead of advancing infantry units to observe and report on German Army movements. The 111th Squadron's planes often attacked German supply lines, convoys of trucks or railroad cars. These missions were extremely dangerous because the planes were constantly exposed to enemy ground fire while flying at extremely low altitudes.¹⁰⁹

In May 1945, German military leadership surrendered to the Allied armies converging on Germany. During combat in Europe, the 111th Squadron won several unit citations and awards for its role in defeating the German Army. By October the 111th Tactical Reconnaissance Squadron was deactivated and rotated back to the United States.¹¹⁰

Ellington Field in the Cold War Era

When the 111th Squadron returned to Houston in 1946 the unit found itself without a home. During the war, Houston Municipal Airport officials had subleased all the 111th Squadron's hangers to Pioneer Airlines. To complicate matters further, Pioneer Airlines had then subleased half the hangar to Chicago and Southern Airlines. The contractual confusion was generated by the Houston Municipal Airport's desperate need for flight operations facilities caused by the rapid expansion of civil aviation during the war and initial post-war period. Airport officials also did not know when the U.S. military would deactivate the Texas National Guard. Ultimately, city leaders expected the 111th Squadron to relocate to a military installation after the war rather than a civilian airport.¹¹¹

¹⁰⁸Ibid. 14.

¹⁰⁹Ibid. 15.

¹¹⁰Ibid. 16.

¹¹¹Houston Chronicle, June 20, 1946.

In August 1946, the USAAF authorized the 111th Squadron to temporarily operate out of Ellington Field. By the next month, War Department officials decided to permanently close all regular USAAF activities at Ellington. A USAAF caretaker unit, however, was assigned to the field for administrative duties. For a short time, the Texas National Guard was Ellington Field's only tenant. Operational status of the field was altered again when the War Department selected Ellington Field as a site for Reserve flight operations.¹¹²

Just months after the surrender of Japan, the USAAF believed that the aggregate wartime experience of army pilots should not be allowed to diminish during peacetime. War Department officials wanted to maintain a pool of combat-tested pilots in the event of a national emergency. Through a Reserve system, pilots would be able to preserve their flying skills with training once a month. The USAAF decided to utilize airfields near large metropolitan areas to maximum population potential. Reservists from surrounding areas would meet at Ellington Field on selected weekends to fulfill their military commitments. To help funnel Reservists into Houston, the military used a C-47 transport aircraft to shuttle Reservists from as far away as Beaumont and College Station, Texas.¹¹³

In 1947, Houston officials discussed the possibility of leasing or purchasing Ellington Field from the government. City managers believed the field could be used as a second airport. The USAAF offered Ellington Field to Houston for a dollar a year rent plus all maintenance costs. Houston officials were tempted by the proposition, however, rental fees from the U.S. National Guard and the U.S. Air Force Reserve were not enough to cover the annual maintenance expenditures, and declined.¹¹⁴

In 1947, Congress passed the National Security Act, establishing an independent U.S. Air Force (USAF) and creating a Department of Defense, which

¹¹²Houston Chronicle, August 13, 1946.

¹¹³Houston Chronicle, September 22, 1946; Houston Chronicle, May 18, 1947.

¹¹⁴Houston Chronicle, February 21, 1947; Houston Chronicle, March 3, 1947.

housed the Army, Navy, and Air Force. The creation of an independent Air Force reflected the vital role military aviation played in the victory over Germany and Japan, and its significance to national security in the post-war world.¹¹⁵

In 1946, the wartime-spawned Grand Alliance between the United States, Great Britain, and the Soviet Union unraveled into a Cold War. Ideological and economic differences between the United States and the Soviet Union put these superpowers at odds throughout the globe. By 1948, the United States had broken with a military policy dating back to the 19th century calling for only a small peacetime military. To counter what American officials perceived as Soviet military expansion throughout the world, the United States would build and maintain a large military force.

On July 28, 1948, Stuart Symington, Secretary of the Air Force, announced that the USAF would reactivate dozens of airfields throughout the nation, including 12 within Texas. Ellington Field was one of the bases selected to be reopened for active duty. The field was renamed Ellington Air Force Base. Air Force officials began to evaluate the costs of reopening the facility. Despite the part-time utilization of the base by National Guard and Reserve units, two years of relative inactivity had taken its toll.¹¹⁶

By the late 1940s, military aircraft had grown in size and operational weight. Larger and heavier aircraft required more runway space and additional hanger area for storage and maintenance. Runways needed resealing, repainting, and resurfacing with a new translucent material to improve night landing capabilities. Administrative buildings, barracks, and hangers required extensive renovation. Reactivating Ellington was a daunting and expensive task.¹¹⁷

¹¹⁵Walter J. Boyne, *Beyond the Wild Blue: A History of the U.S. Air Force, 1947-1997* (New York: St. Martin's Press, 1997), 36-37.

¹¹⁶Houston Chronicle, July 28, 1948.

¹¹⁷Houston Chronicle, July 27, 1948.

In March 1949, the USAF opened a Radar-Navigator School at Ellington Air Force Base. The 48-week course provided intensive classroom and in-air instruction. Cadets trained in TB-25 and T-29 "flying classrooms" to give them hands-on experience. Navigator cadets were taught dead reckoning and celestial navigation. To assist in the training of navigator students, the Air Force installed a microwave navigation system at Ellington. Microwave navigation made night and foul-weather flying safer.¹¹⁸

To help teach celestial navigation, a resident of Houston, Dr. Armand N. Spitz, designed and built a planetarium at Ellington. The observatory, which had a 40-student capacity, stood 50 feet high and was topped by a dome of aluminum. From the auditorium seats, students could observe star formations from any geographical position on the earth and during any season of the year. This unique facility provided radar-navigator cadets with realistic celestial navigation training found nowhere else in the United States.¹¹⁹

With the reactivation of Ellington as an active Air Force base, USAF personnel required all available administrative and operational space. Ellington officials requested that the Texas National Guard move its flight operations back to Houston Municipal Airport. Texas Air National Guard officials, however, were in a tough situation because their hangers at the municipal airport were still sublet to Pioneer Airlines. Houston Municipal Airport officials were concerned that the return of a military squadron to a civilian airfield presented safety risks, but federal officials from the Civil Aeronautics Administration explained that National Guard and Air Force Reserve units operated at 52 civilian airports throughout the nation, trying to abate the airport officials' fears. During 1949, city officials, airline executives, and National Guard representatives discussed the

¹¹⁸Houston Chronicle, June 23, 1948; Houston Chronicle, March 25, 1949; Houston Chronicle, August 17, 1949.

¹¹⁹Houston Chronicle, April 10, 1951.

impasse. The Texas National Guard, however, remained at Ellington Air Force Base until the squadron was federalized during the Korean War.¹²⁰

In 1951 the Midwestern portion of the United States was inundated by floods. Floodwaters rose to record levels in Kansas and farms and livestock were stranded by the deluge. To assist in disaster relief, the U.S. government authorized the use of USAF and Air National Guard units in the location and rescue of flood victims.¹²¹

At Ellington Air Force Base, the USAF Reserve's 5th Air Rescue Squadron was ordered to assist local and state authorities in the search and rescue missions. The 5th Air Rescue Squadron flew in SA-16 Amphibious aircraft to Kansas to help with the search and rescue operation. Once the victims were located, SA-16 crews dropped food and supplies to isolated farm families. In serious cases, amphibious planes dropped life rafts and small powered boats to help ground units rescue victims.¹²²

During a training mission in Arizona in November 1954, the crew of a T-29 from Ellington was killed in a fiery crash after clipping power lines near the Tucson Municipal Airport. The T-29 had just refueled at the airport and took off for a return flight to Ellington Air Force Base. Within minutes, the pilot radioed the control tower with an emergency message. The pilot told Tucson air traffic controllers that the T-29 had mechanical problems, and he needed immediate instructions for an emergency landing. As the plane descended on final approach, it plunged into a perimeter fence just yards from the end of the runway.¹²³

Houston did not escape the unidentified flying object (UFO) hysteria of the 1950s. One night in 1955, residents living near Ellington were startled by what

¹²⁰Houston Chronicle, March 23, 1949.

¹²¹Houston Chronicle, July 18, 1951.

¹²²Ibid.

¹²³Houston Chronicle, November 19, 1954.

they believed was a UFO. A loud, bright unidentified flying object made a low pass over neighborhoods near the base. Curious residents overwhelmed the telephone switchboards at both Ellington and the Houston Police Department. The UFO, however, turned out to be two gear-down T-29s flying abreast making a landing approach after a late-night training mission.¹²⁴

The 111th Fighter Squadron and the Korean War, 1950-1952

On June 24, 1950, North Korean T-34 tanks rumbled across the 38th Parallel into South Korea. North Korean Army units quickly defeated the ill-equipped and -trained Republic of Korea Army troops. In Washington, D.C., President Harry S. Truman decided to defend South Korea from communist aggression. Truman ordered USAF units stationed in Japan to fly close air support missions for the retreating Republic of Korea forces.¹²⁵

Unfortunately USAF air support was not enough to halt the North Korean Army. Truman then ordered U.S. ground forces to the defense of South Korea. The U.S. 24th Infantry Division was airlifted into South Korea. Unable to stop the better-equipped North Korean forces, another entire division was airlifted to Korea to check the advance. Despite the commitment of two American infantry divisions, North Korean forces drove U.S. and South Korean ground units to the outskirts of the city of Pusan. This southeastern portion of the Korean peninsula became known as the Pusan perimeter.¹²⁶

In September 1950, United Nations forces under the leadership of the American General Douglas MacArthur launched a two-pronged counteroffensive. U.S. forces landed to the rear of the North Korean Army troops at the seaport town of Inchon and United Nations forces initiated a simultaneous breakout of the

¹²⁴Houston Chronicle, March 14, 1955.

¹²⁵Clay Blair, *The Forgotten War: America in Korea, 1950-1953* (New York: Anchor Books, 1987), 65.

¹²⁶Ibid, 94-95.

Pusan Perimeter. Soon American-led United Nations forces began a drive north to expel the North Korean Army and recapture South Korean territory.¹²⁷

While United Nations units fought to recover South Korea, the recently redesignated 111th Fighter Squadron¹²⁸ participated in training exercises at Brooks Air Force Base in San Antonio. The 111th Squadron flew their F-51 Mustangs during a two-week summer camp as rumors circulated that the Squadron would be federalized. By October the 111th Fighter Squadron was mobilized to active duty. Once activated, the Squadron was moved to Langley Air Force Base in Virginia for additional training. In March 1951, the 111th Squadron received its first jet aircraft, the F-84E. During an 8-month period, members of the Squadron received jet, maintenance, and weapons instruction at various USAF installations throughout the eastern United States.¹²⁹

In July 1951, the men of the 111th Fighter Squadron boarded a troop train bound for California and then flew from Travis Air Force Base to Tokyo, Japan. The 111th Fighter Squadron took one final plane flight to Fukuoka Airfield, Japan, where the Ace in the Hole Squadron replaced fellow Texans from the 27th Fighter Bomber Wing out of Austin, Texas.¹³⁰

Throughout the summer of 1951, the 111th Fighter Squadron flew from Japan to Korea to conduct close air support missions for the advancing U.S. 8th Army. On occasion, the 111th Squadron flew long-range escort missions for USAF B-29s flying strategic bombing strikes deep within North Korea. During combat, the pilots of the 111th Fighter Squadron fought North Korean Mig-15s high above an

¹²⁷Ibid, 273, 280.

¹²⁸With the creation of the U.S. Air Force in 1947, all U.S. National Guard aviation units were transferred to the newly formed U.S. Air National Guard.

¹²⁹From Jennies to Jets: The Story of the 111th Squadron 1923-1973, 124.

¹³⁰Ibid, 125-126.

¹³⁰Ibid, 128.

area of Korea known as "Mig Alley." In October the Squadron became the first U.S. Air National Guard unit to shoot down a North Korean Mig 15.¹³¹

On September 20, 1951, the 111th Fighter Squadron moved to Tague, South Korea. The airfield in South Korea was designated K-2, and the 111th Squadron joined another U.S. Air National Guard unit from Arkansas to form the 136th Fighter-Bomber Wing. Flying conditions in South Korea were far different from those in Japan. The 111th Squadron flew more missions out of K-2, and men in the squadron had little time for relaxation. F-84 fighters took off from steel matte runways to conduct close air support and interdiction missions. By October, the 111th Fighter Squadron had flown over 5,000 missions while bombing enemy artillery positions, railroads, and supply depots. Despite the daily danger, the Guardsmen from Texas and Arkansas set a safety record for 130 days of accident-free flight operations.¹³²

In May the USAF rotated the 111th Fighter Squadron back to the United States. When the 111th Fighter Squadron arrived back in the United States, facility space at both Ellington Air Force Base and Houston Municipal Airport was unavailable. The 111th Fighter Squadron was forced to temporarily relocate to a small airfield at La Porte, Texas. By July, the 111th Squadron returned to its original home at the Houston Municipal Airport.¹³³

The 111th Fighter Squadron, 1952-1963

For the 111th Fighter Squadron, the years after the Korean War were marked by transition. In January 1953, the Squadron was redesignated a Fighter-Bomber Squadron. During the summer, the 111th Fighter-Bomber Squadron participated in its first post-Korean War training maneuvers. For two weeks, pilots trained at

¹³¹Ibid. 128.

¹³²Ibid. 146, 160.

¹³³Ibid. 146, 160.

Travis Air Force Base, Georgia, along with other Texas Air National Guard squadrons from San Antonio and Dallas.¹³⁴

In 1955, the 111th Squadron was reverted to a Fighter-Interceptor Unit and received F-80s from the USAF. With jet capability, the 111th Squadron was charged with the air defense of the Texas Gulf Coast. In November 1956, the 111th Squadron was permanently transferred from the Houston Municipal Airport to Ellington Air Force Base. Homecoming at Ellington included the dedication of a new U.S. Air National Guard hangar at the active duty base.¹³⁵

The Air National Guard pilots' transition to jet aircraft demanded a high level of flying skill. In 1957, the U.S. Air National Guard established a Jet Instrument School at Ellington Air Force Base. The school served as a jet pilot training facility for all Air National Guard pilots. Over the next two years, the 111th Fighter Interceptor Squadron received F-86 all-weather jet fighters. With the acquisition of all-weather fighter aircraft, the 111th Squadron was assigned a 24-hour air defense role. Under the command of the Aerospace Defense Command, pilots from the 111th Squadron protected the Texas Gulf Coast from enemy attack. In 1960, the 111th Squadron received F-102s, which were long-range, supersonic interceptors armed with air-to-air missiles.¹³⁶

During an alert mission in 1961, tragedy struck the 111th Squadron. Late one night, two F-102s were scrambled to intercept an unidentified aircraft closing in on the Texas Gulf Coast. For unexplained reasons, one F-102 caught on fire and crashed into a rice field near Alvin, Texas, killing the pilot. The accident was the 111th Squadron's first fatality since the Korean War.¹³⁷

¹³⁴Ibid. 161.

¹³⁵Ibid. 168.

¹³⁶Ibid. 168; Houston Post, July 19, 1960.

¹³⁷Houston Chronicle, January 13, 1961.

Ellington Air Force Base, 1957-1962

In 1957, the T-29 fleet at the Radar-Navigator School encountered mechanical problems. Air Force inspectors grounded the entire T-29 fleet until the problems were solved. Eventually the maintenance department discovered faulty valve springs in the engines of several T-29s. After the spring valves were replaced in all the T-29s, the USAF permitted the training aircraft back into service.¹³⁸

In 1957, the U.S. Navy opened a Naval Air Reserve Center at Ellington Air Force Base. Naval aviators flew Grumman S-2 amphibious aircraft on anti-submarine missions over the Gulf of Mexico. The U.S. Navy's anti-submarine capability, combined with the Texas Air National Guard's interceptor ready alert ability, established a formidable defense network for the western half of the Gulf Coast. By 1958, however, the U.S. Naval Reserve Center at Ellington Air Force Base was forced to close due to budgetary considerations.

In January 1958, the USAF replaced the 446th Troop Carrier Wing's C-45s with new C-119s. The new transports had greater range and airlift capability than the smaller C-45s. One of the more bizarre incidents involving this Air Force Reserve unit took place during a long-range training mission. A lone C-119 took off from Ellington Air Force Base bound for Miami, Florida. During the flight over the Gulf of Mexico, the pilot lost the use of all navigational instruments and radio equipment. The plane continued to follow its flight plan, but when the C-119 began its descent into Miami, the city was nowhere in view. Frantically the pilot began to circle the area to find Miami. Finally, as daylight faded, the crew spotted an airfield. Low on fuel, the pilot flew toward the airfield.¹³⁹

When the C-119 landed and rolled to a stop, it was immediately surrounded by trucks and jeeps. Soldiers jumped out of the vehicles and pointed their

¹³⁸Houston Post, July 23, 1956; Houston Post, October 17, 1957; Houston Post, June 25, 1957.

¹³⁹Houston Post, January 10, 1959; Houston Post, November 30, 1959.

weapons at the C-119, shouting in Spanish. The C-119 had not landed in south Florida, but on the island of Cuba! After a brief but intense standoff with the Cuban Army, the C-119 crew was taken to a barracks at the airport where they were served a meal and spent the night. Early the next morning the C-119 was refueled and the Reservists flew north to Miami to complete their mission a day late.¹⁴⁰

In 1958 a special visitor arrived at Ellington Air Force Base. Since the opening of Ellington Air Force Base 40 years earlier, Air Force officials had never received a visit from a member of Lt. Eric Lamar Ellington's immediate family. Mrs. Ellington-Hocutt, the sister of Eric Lamar Ellington, while in Houston for a meeting of the Southern Baptist Convention, decided to use the opportunity to see the federal facility named after her brother.¹⁴¹

Upon arriving at the main gate, Mrs. Ellington-Hocutt was awestruck at the base's size. Colonel Howard Bronsen, commander of Ellington, took Mrs. Ellington-Hocutt on a complete tour of the base. After her tour of the building complex, Col. Bronsen took Mrs. Ellington-Hocutt onto the tarmac where all flight operations were conducted. Looking at a row of C-119 "Flying Boxcars," Col. Bronson told Mrs. Ellington-Hocutt that her brother's entire Wright C Flyer could easily fit under the C-119's wingspan.¹⁴²

At the end of the tour, Col. Bronson showed Mrs. Ellington-Hocutt the portrait of her younger brother in the Headquarters Building. The juxtaposition of the aged sister against the portrait of her younger brother was a startling contrast. Mrs. Ellington-Hocutt, however, was unimpressed with the portrait. She complained that it "was not a very good likeness," and even offered to send another picture for a new painting. When Mrs. Ellington-Hocutt left, she stopped

¹⁴⁰ Houston Post, November 30, 1959.

¹⁴¹ Clayton Observer, May 23, 1958.

¹⁴²Ibid.

by the Ellington Air Force Base sign and snatched a clump of grass and dirt as a remembrance of her long overdue visit.¹⁴³

In 1959, the city of Houston began to consider the possibility of the construction of a second civil airport. By the late 1950s, Houston had outgrown the operational capacity of Houston Municipal Airport. The air space around south Houston could not handle all the air traffic from both Ellington and Houston Municipal Airport. Local real estate developers took a cue from the city's concern and purchased a large tract of land north of Houston. Real estate entrepreneurs offered to sell the land to the city for \$1,990,000. Houston officials, however, turned down the land deal. It would be more than a decade before Houston would build another commercial airport.¹⁴⁴

In 1959 Ellington Air Force Base expanded in a different way. The Civil Air Patrol moved its national headquarters from Bolling Air Force Base in Washington, D.C. to Houston. As a civilian auxiliary to the USAF, the Civil Air Patrol promoted aviation to young Americans and helped to search for lost civilian or military aircraft. Besides serving as Civil Air Patrol Headquarters, Ellington Air Force Base functioned as the location for summer courses for Reserve Officer Training Corps (ROTC) cadets. Throughout the late 1950s, colleges and universities from 22 states sent ROTC cadet officers to Ellington Air Force Base for the completion of their cadet officer training requirements.¹⁴⁵

In 1959, Ellington Air Force Base was transferred from the Air Training Command to the Continental Air Command (CONAC). Over 10,000 Radar-Navigator students went through training classes during the 10 years that Ellington Air Force Base had served as the main Radar-Navigator School in the United States. Under CONAC, Ellington Air Force Base shifted from an active duty base to an Air Force Reserve facility. With the transition to a Reserve status,

¹⁴³Ibid.

¹⁴⁴Houston Chronicle, June 23, 1959.

¹⁴⁵Houston Post June 25, 1959; Houston Post, March 20, 1958.

the number of personal dropped from 5,000 to around 200. A USAF housekeeping unit remained at the base for administrative purposes, but all regular Air Force flying squadrons were transferred to other bases. From 1959 on, Air National Guard and USAF Reserve units conducted all flight operations at Ellington Air Force Base.¹⁴⁶

After Ellington's transfer to CONAC, Air Force Reserve activities played a larger role. In 1959, the 446th Troop Carrier Wing hosted an "air rodeo." This event was held to determine which USAF Reserve cargo squadron was the most accurate in the nation. Competition took place in the skies above Ellington and on the blacktop tarmac below. Forty aircrews from 14 air cargo wings represented 12 states in the unusual contest. During the event, aircrews dropped 260-pound bundles from C-119s flying high above the base and attempted to hit designated targets on the ground. Ellington's own 446th Troop Carrier Wing won the first annual competition.¹⁴⁷

In 1961, the USAF Reserve's 446th Troop Carrier Wing participated in a winter training mission in Canada. During one of the flights, a C-119 crashed into the Canadian hinterland. The cause of the accident was a faulty brake mechanism that overheated, resulting in a fire and an explosion in the landing gear well. As the C-119 spun out of control, several crew members parachuted to safety, but most of the crew was trapped inside the burning plane. Those crew members who parachuted from the plane were widely dispersed over the rugged Canadian terrain. Search and rescue teams spotted most of the downed crew, but several members of the C-119 crew spent several cold days in the Canadian winter before rescue.¹⁴⁸

¹⁴⁶Houston Post, March 9, 1959.

¹⁴⁷Houston Post, November 23, 1959.

¹⁴⁸Houston Post, November 24, 1961; Houston Post, November 25, 1961; Houston Post, November 26, 1961; Houston Post, November 29, 1961.

In October 1961, Ellington Air Force Base hosted an open house and air show. The theme of the open house was the past, present and future of aviation in south Texas. This theme tied perfectly into the recent announcement of the relocation of the National Aeronautics and Space Administration's (NASA) Space Task Group (STG) from Langley, Virginia to Houston. Aircraft on display ranged from Wright C Flyers, that flew when Lt. Eric L. Ellington was stationed at Texas City five decades before, to F-102 fighters. Flight demonstrations by both the USAF Thunderbirds and the United States Navy Blue Angels were the highlights of the air show. Ironically, the most popular exhibit on the ground was not an aircraft, but an unmanned rocket. More spectators examined a Thor missile at the open house than any other static display, foreshadowing Houston's shift from economic reliance from aeronautics to astronautics.¹⁴⁹

Ellington Air Force Base and NASA, 1961-1963

In 1958 Congress passed the National Aeronautics and Space Act which established the civilian space agency, NASA. Many officials in the new agency wanted NASA to focus on the development of unmanned launched vehicles for the delivery of military payloads and satellites. However, there was a faction within NASA that believed in the development of a manned space program. By 1960, NASA was committed to the idea of manned spaceflights. The next year, President John F. Kennedy publicly linked a manned trip to the moon with Cold War politics. Now a national priority, the race to the Moon was on.¹⁵⁰

In 1961, NASA established the STG to plan and conduct the manned space program. STG officials envisioned an entire complex devoted to the training of astronauts. Existing facilities at Langley Air Force Base, however, were unsuitable for a "space base." In June, NASA conducted a nationwide survey of potential sites for the location of the new astronaut training complex. NASA officials

¹⁴⁹Houston Post, October 26, 1961; Houston Post, October 28, 1961; Houston Pos , November 1, 1961.

¹⁵⁰Henry C. Dethloff, Suddenly, Tomorrow Came: A History of the Johnson Space Center (Washington D.C.: NASA, 1993), 13-15, 28-30.

arrived in south Texas to survey the entire Houston area, including a tour of the flight operation facilities at Ellington Air Force Base. On an operational level, the city of Houston met all of NASA's basic infrastructure requirements. It was a metropolitan area with deep-water ports, an Air Force base, and quality universities.¹⁵¹

Besides economic infrastructure, the city of Houston had the most important requirement of all—political connections. U.S. Representative Albert Thomas (D-Tex) lobbied Congress to select Houston for the site of the new "Space Base." Vice President Lyndon Baines Johnson, a strong supporter of the civilian space program, backed the selection of Houston. With the political clout of Representative Houston and Vice President Johnson, Houston was assured of the STG's preference.¹⁵²

In September 1961, the STG announced its decision to move from Langley, Virginia, to Houston, Texas, and renamed itself the Manned Spacecraft Center (MSC). Advance teams from Langley left for Houston to begin the immense job of relocation of personnel and the construction of the new facility. Houston city officials rolled out the red carpet for the employees and families of the Manned Spacecraft Center. The Gulfgate Shopping Center provided MSC advance teams with free office space. The Houston Chamber of Commerce provided information on housing, schools, and recreational facilities for families relocating to south Texas.¹⁵³

While the MSC site was under construction, unoccupied buildings and barracks at Ellington Air Force Base were used by the growing number of people moving from Virginia for administrative offices. Some of the buildings, however, were in a state of disrepair and had to be renovated. Insect infestation, dryrot,

¹⁵¹ Houston Post, June 12, 1961; Houston Post, June 15, 1961.

¹⁵² Dethloff, 35-40.

¹⁵³ *Ibid.* 46.

and lack of air conditioning were some of the maintenance problems MSC staff had to cope with while refurbishing the older structures.¹⁵⁴

From the onset of the MSC's relocation to the Houston area, NASA officials had always envisioned Ellington Air Force Base in a key role for the space program. Ellington's flight facilities were essential for astronaut flight training. In 1962, MSC established an independent Aircraft Operations Division to conduct all astronaut flight training. Walter Williams, MSC Deputy Director, selected Joseph Algranti to oversee the new Aircraft Operations Division.¹⁵⁵

As Chief of Aircraft Operations Division, Algranti had a complex, daunting task: to manage all astronaut flight training operations, aircraft maintenance, and safety and quality assurance criteria. Throughout the first years of MSC, Algranti's team provided astronauts with T-38s for flight training missions. Mercury, Gemini, and Apollo astronauts logged thousands of hours in T-38s to maintain their flying skills. As the home for all astronaut flight training, Ellington Air Force Base played a vital role in the success of the U.S. space program.¹⁵⁶

Epilogue

By 1967, Ellington Air Force Base was the site of the Apollo lunar landing training program and yet continued its role as the site for USAF Reserve and Texas Air National Guard flight operations. In 1976, Ellington Air Force Base was officially deactivated. All Air Force Reserve squadrons were transferred to other USAF facilities. Texas Air National Guard flight operations, however, continue to this day. From 1976 to 1984, a USAF caretaker unit oversaw the maintenance of the base. In 1984 the city of Houston purchased Ellington Air Force Base to use as a third civil airport. Renamed Ellington Field, the airfield still serves today as a crossroad for all aspects of aviation in south Texas.

¹⁵⁴Ibid. 46-47.

¹⁵⁵Joseph S. Algranti, "Aircraft Operations at MSC," 1-4, Interview by Robert Mifield 28 March 1968, Johnson Space Center Oral History Project, transcript, LBJ Space Center Scientific and Technical Information Center, Houston, Tx.

¹⁵⁶Ibid. 2-5.

REPORT DOCUMENTATION PAGE

 Form Approved
 OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave Blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED	
	February 1999	Contractor Report	
4. TITLE AND SUBTITLE Ellington Field: A Short History, 1917-1962			5. FUNDING NUMBERS
6. AUTHOR(S) Erik Carlson*			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Lyndon B. Johnson Space Center Houston, Texas 77058			8. PERFORMING ORGANIZATION REPORT NUMBERS -
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) National Aeronautics and Space Administration Washington, DC 20546-0001			10. SPONSORING/MONITORING AGENCY REPORT NUMBER CR-1999-208921
11. SUPPLEMENTARY NOTES *Contractor for Lyndon B. Johnson Space Center			
12a. DISTRIBUTION/AVAILABILITY STATEMENT Available from the NASA Center for AeroSpace Information (CASI) 7121 Standard Hanover, MD 21076-1320			12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 words) This document details the chronological history of an air field in Southeast Texas that currently serves as an adjunct to NASA Johnson Space Center as well as a civilian/military air field. The field was built early in the 20th century, soon after airplane flight became a recognized factor in American military applications, was central to a wide variety of military uses throughout this century, and remains viable for such purposes in addition to serving a vital role in NASA's training of astronauts.			
14. SUBJECT TERMS airports, air defense, military aircraft, aircraft design, aircraft pilots, airport planning, armed forces (United States)		15. NUMBER OF PAGES 57	16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited

